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Application No.: 10/751,706

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AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier.

1. (Original) A method for forming a layer on at least a portion of a surface of a biocompatible medical device, the method comprising:
reacting a first functional group on a polysaccharide in a polysaccharide complex with a second functional group on the at least a portion of the surface of the medical device to covalently bond the polysaccharide to the surface in the presence of an organic solvent, wherein the polysaccharide complex comprises quaternary ammonium cations associated with the polysaccharide.
2. (Cancelled)
3. (Original) The method of claim 1 wherein the polysaccharide, before being complexed with the quaternary cations, comprises the first functional group.
4. (Original) The method of claim 3 wherein the polysaccharide, before being complexed with the quaternary cations, is decorated with the first functional group in a chemical reaction that takes place in a non-organic solvent.
5. (Cancelled)
6. (Original) The method of claim 1 wherein the polysaccharide is a W-MPSAC.
7. (Original) The method of claim 1 wherein the polysaccharide is an O-MPSAC.

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8. (Currently Amended) The method of claim 1 wherein the first and/or second functional group is a photoactivatable group.
9. (Cancelled)
10. (Original) The method of claim 1 wherein the first functional group or the second functional group is an azide.
- 11-12. (Cancelled)
13. (Original) The method of claim 1 wherein the first functional group is an electrophile and the second functional group is a nucleophile.
- 14-21. (Cancelled)
22. (Original) The method of claim 1 wherein polysaccharide comprises heparin.
- 23-25. (Cancelled)
26. (Original) The method of claim 1 further comprising reacting the first functional group with the second functional group in the presence of a third functional group, wherein the third functional group forms a covalent bond with at least one of the first functional group and the second functional group.
- 27-30. (Cancelled)
31. (Original) The method of claim 1 further comprising exposing the covalently bonded polysaccharide complex to a salt solution to decomplex the quaternary ammonium cations from the polysaccharide bound to the surface.
- 32-33. (Cancelled)

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34. (Original) A method for forming a layer on at least a portion of a surface of a biocompatible medical device, the method comprising:
- contacting the surface of the medical device with a plurality of synthetic polysaccharide polymers, with the polysaccharide polymers having an average length of at least two polysaccharides covalently bonded per polymer, to form the layer, wherein the polysaccharide polymers are formed by chemically reacting polysaccharide complexes in an organic solvent, the polysaccharide complexes comprising quaternary ammonium cations associated with polysaccharides and at least one functional group capable of forming a covalent bond.
35. (Cancelled)
36. (Original) The method of claim 34 wherein the polysaccharide, before being complexed with the quaternary cations, comprises the functional group.
37. (Cancelled)
38. (Original) The method of claim 34 wherein the polysaccharide is a W-MPSAC.
39. (Original) The method of claim 34 wherein the polysaccharide is an O-MPSAC.
40. (Cancelled)
41. (Original) The method of claim 34 wherein the polysaccharide polymers further comprise a second functional group for forming a covalent bond after the layer is formed.
42. (Currently Amended) The method of claim 41 wherein the first and/or second functional group is a photoactivatable group.
- 43-48. (Cancelled)

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49. (Currently Amended) The method of claim 34 wherein the organic solvent has a boiling point at atmospheric pressure of less than approximately 115 degrees Centigrade and a dielectric constant that is less than that of DMSO.

50-55. (Cancelled)

56. (Original) The method of claim 34 further comprising polymerizing monomers into the polysaccharide polymers.

57. (Original) The method of claim 34 wherein the polysaccharide polymers are formed in the presence of a solubilized a non-polysaccharide polymer.

58-60. (Cancelled)

61. (Currently Amended) The method of claim 34 wherein the polysaccharide polymer comprises a cross-linked structure or a branched structure.

62-63. (Cancelled)

64. (Original) The method of claim 34 wherein the polysaccharide polymer is covalently bonded to the surface.

65. (Original) The method of claim 34 wherein the polysaccharide polymer is bound to the surface through electrostatic interactions.

66. (Currently Amended) The method of claim 34 wherein the polysaccharide complex is covalently bonded to the surface and further comprising exposing the covalently bonded polysaccharide complex to a salt solution to decomplex the quatarnary ~~quaternary~~ ammonium cations from the polysaccharide bound to the surface.

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67. (Currently Amended) The method of claim 34 wherein the quaternary ammonium cation is chosen from the group consisting of cetyltrimethylammonium chloride, dodecyldimethylbenzylammonium chloride, benzalkonium chloride, didecyldimethylammonium chloride, benzethonium chloride, hexyl trimethyl ammonium, decyl trimethyl ammonium, lauryl trimethyl ammonium, myristyl trimethyl ammonium, cetyl trimethyl ammonium, stearyl trimethyl ammonium, didecyl dimethyl ammonium, dilauryl dimethyl ammonium, and distearyl dimethyl ammonium and wherein the organic solvent comprises at least one member of the group consisting of dimethylformamide, dimethylacetamide, dimethyl sulfoxide, hexamethylphosphoric triamide, formic acid, acetonitrile, methanol, ethanol, acetone, acetic acid, dichloromethane, pyridine, and formamide.

68.-94. (Cancelled)